



Nicola Marmo

Website:

WORK EXPERIENCE

26/05/2023 – 19/11/2023 Sagamihara, Japan

VISITING RESEARCHER JAXA (JAPANESE AEROSPACE EXPLORATION AGENCY)

Application of robust trajectory optimization to JAXA future missions.

02/10/2019 – 19/10/2020 Sagamihara (Kanagawa), Japan

RESEARCH ASSISTANT JAXA (JAPAN AEROSPACE EXPLORATION AGENCY)

Astrodynamic research in Kawakatsu laboratory for the next JAXA missions MMX and Destiny+. More in detail, ballistic capture assessment for the Phobos approaching phase (MMX) and spiraling phase design before Moon encounter (DESTINY+).

28/10/2018 – 05/09/2019 Colleferro (RM), Italy

GNC (GUIDE, NAVIGATION & CONTROL) ENGINEER AVIO (ON BEHALF OF AIZOON)

GNC engineer for ESA's satellite launcher Vega and separation analyst of the evolved in development version Vega C.

20/11/2016 – 10/08/2018 Rome, Italy

MISSION ANALYST SAPIENZA - UNIVERSITY OF ROME

Responsible for the mission analysis and data filtering for LEDSAT mission. The mission consists in a 1U CubeSat that will be launched from ISS in 2019. The satellite is one of the eight winners of the ESA competition "Fly Your Satellite!", which offers participating Universities the opportunity to design, construct and launch a fully operative CubeSat.

EDUCATION AND TRAINING

31/10/2020 – CURRENT Rome, Italy

PHD IN AERONAUTICAL AND SPACE ENGINEERING Sapienza University of Rome

Research topic: Robust optimization of interplanetary trajectories by means of chance-constrained methodologies.

27/09/2015 – 24/05/2018 Rome, Italy

MASTER'S DEGREE IN SPACE & ASTRONAUTICAL ENGINEERING Sapienza University of Rome

Main subjects: Orbital mechanics and attitude dynamics, gas dynamics, control theory, space propulsion, space systems, space structures, electronics, interplanetary trajectories, spacecraft design, space medicine, space robotic systems, space guidance and navigation systems.

Thesis: *Optimization of low-thrust trajectory to Near-Earth asteroid with Earth gravity assist* (Polytechnic University of Turin).

Design of a sample-return mission by means of indirect methods implemented in Fortran.

GPA: 27.25/30.

15/04/2018 – 19/04/2018 Redu, Belgium

ESA SPACE DEBRIS TRAINING COURSE ESA Academy's Training & Learning Centre in ESEC

The course provided university students with an introduction to the concept of space debris, why it is necessary to address this problem, and how the mitigation policies set by ESA apply to missions.

02/10/2011 – 20/10/2015 Rome, Italy

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING Roma Tre University

Main subjects: Mathematical analysis, linear algebra, physics, chemistry, analytical mechanics, materials science, fluid mechanics, electrical engineering, structural engineering, applied mechanics, applied thermodynamics and fluid dynamics.

Thesis title: *Aeroacoustic analysis of two cylinders in air flow.*

Recording campaign of noise generated by air flow around two identical cylinders spatially separated in the streamwise direction.

GPA: 24.75/30.

10/09/2006 – 03/07/2011 Rome, Italy

HIGH SCHOOL DIPLOMA L. S. S. Aristotele

Main subjects: Math, italian literature, physics, english, chemistry, history, philosophy, latin.

● **LANGUAGE SKILLS**

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	B2	B2	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● **DIGITAL SKILLS**

AGI STK | Proficient in using Microsoft Office | NASA DAS | ESA DRAMA

Programming language

C++ | MATLAB SIMULINK | FORTRAN | Basic bash programming | Python | LaTeX Document preparation

● **NETWORKS AND MEMBERSHIPS**

Member of the Order of the Engineers of Rome

Membership No. A37793

● **DRIVING LICENCE**

Driving Licence: B

● **CERTIFICATIONS**

Habilitation to exercise the Industrial Engineering Profession

EdS, 1° Sessione del 2018, Sez. A

● PERSONAL INTERESTS

Hobbys and interests

Classical music, piano, painting, math olympiad, chess.

Le informazioni contenute nel presente "curriculum vitae et studiorum" sono rese sotto la personale responsabilità del sottoscritto, ai sensi degli articoli 46 e 47 del Decreto del Presidente della Repubblica 28 dicembre 2000, numero 445, e successive modifiche e integrazioni, consapevole della responsabilità penale prevista dall'articolo 76 del medesimo Decreto per le ipotesi di falsità in atti e/o dichiarazioni mendaci

Roma , 11/06/2024



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